

Claims

1. A three-dimensional flat cable made of a laminate, which comprises at least one conductor path, which is bonded between at least one cover layer and at least one support layer, wherein at least one adhesive layer is provided for bonding the layers, which layer following or during a forming process of the laminate fixes the flat cable in the three-dimensional shape by the application of heat, radiation and/or pressure.
2. A flat cable according to claim 1, characterized in that the support layer is made of a metal or plastic film, a metal or plastic grid or of a similar flat material made of a textile with carbon fibers or glass fibers.
3. A flat cable according to claim 1, characterized in that the support layer is a porous layer.
4. A flat cable according to any one of the claims 1 to 3, characterized in that the adhesive layer is made of a thermoplastic adhesive, an adhesive film and/or an adhesive non-woven fabric with a melting point T_m of $< 210^\circ\text{C}$ and/or a latent reactive adhesive with a cross-linking temperature of $< 210^\circ\text{C}$.
5. A flat cable according to claim 3, characterized in that at least one further porous layer is provided to serve as a cover.

6. A flat cable according to claim 5, characterized in that the porous layer is made of a non-woven fabric or a non-woven with polymer fibers.

7. A flat cable according to claim 1, characterized in that the cover layer is a non-woven fabric layer, which comprises only polyester, polyamide, polyolefin, syndiotactic polystyrene, polysulfone, carbon and/or glass fibers and the pores of which are filled between the fibers or filaments so strongly with a binding agent that a dielectric strength of at least 500 V is achieved.

8. A flat cable according to any one or more of the claims 1 to 6, characterized in that the flat cable is back-injected at least in some regions with a thermoplastic or an elastomer.

9. A flat cable according to any one or more of the claims 1 to 8, characterized in that the conductors of the conductor path are exposed at least in some regions of the surface prior to the laminating process so as to form contact fields.

10. A flat cable according to any one ore more of the claims 1 to 9, characterized in that the flat cable is provided with electronic elements.